

C H A P T E R 1

Value Avatar

Benjamin Graham

BENJAMIN GRAHAM'S ARRIVAL on Wall Street in that summer of 1914 was not much more than a chance encounter, a light reconnaissance of the world of money. There were no telltales that Graham would live in that world for the next four decades, synthesize a dominant theory of value investing, and in the process create a class of thousands of superinvestors like himself. Among the chief disciples is one-time student and employee Warren Buffett, who graces Graham with the ultimate accolade. Graham, he says, had more influence on him than any man except his father.

Buffett underscored the link through his own son's middle name—Howard Graham Buffett. Among other expressions of filial gratitude, Buffett has unabashedly told fellow Berkshire Hathaway shareholders, "I benefited enormously from the intellectual generosity of Ben Graham, the greatest teacher in the history of finance."

Buffett doesn't burn incense at Graham's shrine simply because he was a nice guy. Graham has been dead for more than three decades now, but there are still uncanny touches of his style in the discipline that has made Buffett and dozens of other disciples very rich men.

What did Graham so lastingly teach this school of brilliant portfolio managers? The simple hardheaded principle that is at the heart of value investing: the need to cut through market prices to reality. When you buy a stock, you are not buying a piece of paper; you're buying part of a business. There is often a huge spread between the "intrinsic value" of the business and the price that a frequently manic stock market is putting on the paper. Buy a stock significantly above intrinsic value and

you court a loss. Buy below intrinsic value and you have a good chance of making money over the long haul, with little risk of taking a permanent hit on your capital. The basic bet is that market value and intrinsic value will ultimately converge.

In one of a number of lead articles he wrote for **Forbes** Graham thought of his strategy as “buying dollar bills for 50¢.” It was a strategy that enabled him to survive the bad years of the 1929 crash while others were sinking and it brought him returns of 20 percent or more over many good years.

The touchstone is intrinsic value. How to establish it? Graham, an irrepressible polymath who loved puns, dancing at Fred Astaire studios (mainly for the pulchritude of the female instructors), and Latin verse, worked at refining his formula almost literally to his dying day in 1976 at age 82. First he concentrated on undervalued assets. Then he began working earnings and dividends into his risk/reward equations. His formula in its final form, a distillation to ten critical elements, took shape as Graham’s “Last Will & Testament” in the **Forbes** of August 1, 1977 (see box, next page).

The refinements evolved out of his own experience in Wall Street, three decades of teaching at the Columbia Graduate School of Business, and the writing of his multiedition best-sellers, **Security Analysis** and **The Intelligent Investor**

Graham had little time for the hype and hyperbole of Wall Street. Talking of growth stock fads and high-tech cults shortly before he died, Graham noted that the Bourbon Kings were said “to forget nothing and learn nothing.” “Wall Street people,” he added, “typically learn nothing and forget everything.” It’s fashionable in these high-flying days to dismiss Graham as irrelevant. If Graham is irrelevant, so is Warren Buffett.

The education of Ben Graham, Wall Streeter, began that summer in 1914. Graham was 20, a star young graduate and classics scholar who sometimes thought of himself as the wandering Ulysses. He had already turned down flattering but low-paying teaching offers from three different departments at Columbia University. He had missed out on a job touring Europe as an assistant to the high-powered author Norman Angell and had even taken a fling at writing advertising jingles (“There Was a Young Woman from Winona Who Never Had Heard of Carbona”).

Ten Points: Ben Graham's Last Will and Testament

In his last years, Ben Graham distilled six decades of experience into ten criteria that would help the intelligent investor pick value stocks from the chaff of the market.

The Ten:

- 1 An earnings-to-price yield of twice the triple-A bond yield. The earnings yield is the reciprocal of the price earnings ratio.
- 2 A price/earnings ratio down to four-tenths of the highest average P/E ratio the stock reached in the most recent five years. (Average P/E ratio is the average stock price for a year divided by the earnings for that year.)
- 3 A dividend yield of two-thirds of the triple-A bond yield.
- 4 A stock price down to two-thirds of tangible book value per share.
- 5 A stock price down to two-thirds of net current asset value—current assets less total debt.
- 6 Total debt less than tangible book value.
- 7 Current ratio (current assets divided by current liabilities) of two or more.
- 8 Total debt equal or less than twice the net quick liquidation value as defined in No. 5.
- 9 Earnings growth over the most recent ten years of seven percent compounded—a doubling of earnings in a ten-year period.
- 10 Stability of growth in earnings—defined as no more than two declines of five percent or more in year-end earnings over the most recent ten years.

Together, Ben's ten points construct a formidable risk/reward barrier. The first five point to potential reward by pinpointing a low price in relation to such key operating results as earnings. The second five measure risk by measuring financial soundness and stability of earnings.

Backtesting has shown that concentrating on stocks that meet just two or three of these criteria can produce good results. Changing market conditions and business practices (see text) make it unlikely that many stocks will get by these screens, which Graham worked out together with James Rea, an aeronautical engineer. Six years after Graham died, Rea tucked the formula into a mutual fund known as the American Diversified Global Value Fund. Run by Rea's son, James Jr., it turned out to be a clunker.

Now, carrying a recommendation from Columbia Dean Frederick Keppel, Graham was pacing anxiously in front of Trinity Church, waiting for the hands on the steeple clock to creep to 3:10 P.M. That was his cue to cut across the street to 100 Broadway and an after-the-market-close interview for a job as a junior bond salesman with the partners of the New York Stock Exchange firm of Newburger, Henderson & Loeb.

The reception was a bit starchy. Senior partner Alfred Newburger—"Mr. A.N." as he was known in the firm—seemed surprised that Graham, despite a fistful of distinctions in math, English lit, and philosophy, had dropped out of the only economics course he had taken. Graham had whizzed through Columbia on a scholarship in two and a half years, working the while at such odd jobs as a night shift manager for the U.S. Express Co. and peddling cut-rate photograph coupons door-to-door. Graham hurriedly told Mr. A.N. he just hadn't been able to reschedule the economics course, and then demonstrated his practical grasp of the subject by talking up the starting salary on his new job from \$10 to \$12 a week. "We always start our young men at \$10 a week, but in view of your necessities we'll stretch a point and make it \$12," Mr. A.N. told the new recruit.

Newburger knew something of Graham's background. Graham's father had died when Ben was nine. The family's prosperous chinaware import business had quickly gone bust in the hands of uncles, bringing a precipitous drop in fortune. A household that had included a cook, a maid, and a French governess had literally become a boarding house, a forlorn last-ditch stab at making ends meet. To Graham's shame, the enterprise failed so badly that even the furniture had to be auctioned off. As the family mathematician, it was 12-year old Ben's job to tally the proceeds room by room, right down to the upright piano that sold for \$150.

Ben's "necessities" as Newburger called them, included not only helping with the support of his widowed mother, but such chronic financial emergencies as the failure of a suburban movie house that older brother Leon had bought only a few months before.

Playing to Ben's needs, Mr. A.N. expanded on the opportunities Wall Street might unfold for a young bond salesman with the right stuff. He ended the interview, recalled Ben, with a warning. "If you speculate, young man, you'll lose your money. Always remember that." It was

a warning that young Ben took to heart—but only after getting blindsided a couple of times by his own enthusiasms. When he talked speculation, Mr. A.N. didn't mean the threat of a paper loss. He was talking about getting wiped out.

Learning the business from the ground up—matching buy and sell orders in the back office, swapping checks and stock certificates with other runners—Graham jauntily hung his newly arrived Phi Beta Kappa key to the watch chain across his vest, and went right on working two after-hours jobs. One of them was tutoring army officers' sons on Governors Island; the other teaching English to foreigners at night school.

All told, Ben was bringing in \$28 a week—a decent sum in a time when you could buy a workshirt for 75¢ and beef steak for 26¢ a pound. Counting what brothers Leon and Victor earned, there was now enough to move the Grossbaums (the family name was changed after the outset of World War I) to what Ben in his memoirs describes as the “rather exclusive apartment complex called the Hunts Point Complex.” “One of the less desirable five-room apartments,” continued Ben, “could be had for a mere \$45 a month,” only \$10 more than the old flat in down-at-the-heels Kelly Street. The move to Hunts Point in the southwest Bronx, then a predominantly Jewish neighborhood graced by fine apartment houses with marquees, uniformed doormen, and tennis courts, was a big step up.

“Imagine with what pride the Grossbaum family took up their abode in this huge and glistening palace. No blasé experience of the past could chill our enthusiasms nor could any deeper wisdom tell our triumphant hearts that all these things were only baubles,” recalled Ben. “Dreamy and impractical,” he had often fantasized of restoring the family fortunes. Now Graham was savoring the first of many rewards that would come from the trade-off of his university teaching ambitions against a commitment to Wall Street never quite reconciled in his classicist soul.

Working his way out of backoffice chores to a slot in the Newburger bond department, Ben needed no repetition of Mr. A.N.'s warnings on the perils of speculation. He had learned of them at his mother's knee. Mrs. Grossbaum had a small margin account and, among other stocks, had been trading odd lots of U.S. Steel. As a small boy, recalled Ben, he had checked the financial pages to keep tabs on how the stock was

doing—knowing just enough “to be glad when the price advanced, and sorry when it was down.” His mother’s account was wiped out in the panic of 1907, adding to the anxiety Graham often felt when Mrs. Grossbaum sent him to the bank to cash a personal check. “Is Mrs. Grossbaum good for five dollars?” the tellers would whisper.

At Newburger, Henderson & Loeb, Graham was beginning to formulate the crux of his theory of value investing. All investments are tinged with some element of speculation, he thought. The trick was to limit the level of risk. Always look for a margin of safety. Ben’s theories did not spring full-blown, like Minerva from the brow of Jupiter. They grew by trial and error—some wins, some fearful losses—and maturation.

Did the family’s business misfortunes help to forge Graham’s conviction that the margin of safety was the supreme rule of the investment road? At age 20 he had already tasted what for many would have been a lifetime of exiguous bad luck—with plenty more to come.

Take the summer of 1910, spent after graduation from Boys High School in Brooklyn on a hard scrabble dairy farm in upstate New York. Ben was working a 60-hour week, pitching hay, slopping the pigs, mucking out stables. The pay: \$10 a month and board. After chores at night, Ben was teaching himself ancient Greek by lantern light, certain that he had won a Pulitzer scholarship that would give him a full four-year ticket through Columbia.

Then came the devastating word. He thought he had sailed through a final interview only to be told that he had not made the cut after all. Graham’s fallback was tuition-free City College of New York. CCNY was at its zenith then, tough to get into on merit, a powerhouse of the poor but hugely talented. Graham saw going there after the rejection at socially upscale Columbia as “the acceptance of inferiority, the admission of defeat.” He soon dropped out, and drifted through a couple of monotonous assembly-line jobs, easing the tedium by reciting to himself passages from the *Rubaiyat* and the *Aeneid*.

Then came a stunning note from Columbia’s Dean Keppel. Through some administrative mix-up, Ben’s name had been confused with that of cousin, Louis Grossbaum, who already had a Pulitzer. Ben’s award, with inexorable bureaucratic logic, had gone to the next person in line. “But I’ve lost a whole year,” Ben told Dean Keppel. Then, characteris-

tically, he set about cramming for placement exams that enabled him to catch up on lost time and then some.

Thus, by the time he had nodded acquiescence to Mr. A.N.'s caution on speculation, two elements of young Ben's nascent theory of value investing were already in place: Anticipate the unexpected; prepare for it with rigorous study.

In spare moments at Newburger, Ben set about memorizing descriptions of the bonds on the firm's recommended list, jotting them down in a loose-leaf notebook. What was at first an indistinguishable blur of items like "Atchison, Topeka and Santa Fe General 4s, Due 1995" settled into a pattern that made Ben something of a walking manual on railroad securities.

He began looking for deeper patterns behind the raw numbers, a challenging task in a time when companies were only reluctantly beginning to disclose at least window dressing on their operations, and stock prices were more often as not a product of rumor and manipulation.

One of Ben's early reports—an analysis showing that Missouri Pacific Railroad bonds had slipped below investment grade—was so penetrating that it drew a job offer from a competing brokerage firm. Newburger preempted the bid by raising the upstart's pay from \$12 to \$18 a week. He was shifted out of bond sales (where he'd generated very little in commissions) and breveted the firm's first "statistician" (i.e., a security analyst).

Ben never did cotton to the sales side of the business. The upgrade did so much for his confidence levels that he for a time affected a walking stick. Though cautious, Graham was by no means risk averse, and quite willing to take a flutter on his own recommendations.

At one point, he projected improving earnings for the Missouri, Kansas & Texas Railroad. The stock seemed cheap at \$12 a share. Ben went into a joint account with one of Newburger's customers men on 100 shares and was showing a small profit when authority intervened in the person of Mr. A.N. ("He seemed to know everything about everybody in the firm," recalled Ben.) Newburger ordered Ben to unwind the deal and chewed him out.

"If you are going to speculate in something, you should have better sense than to pick a run-down, no good road like the M.K.T." It was another lesson in the need for rigorous analysis. Mr. A.N. had taken a

hard look at the interest coverage on the road's bonds. Graham hadn't, distracted for the moment by what proved to be only a temporary (and suspiciously fortuitous) bulge in the M.K.T.'s profits.

In the end, Mr. A.N. was right, but so was Ben. The M.K.T. did indeed flounder into bankruptcy, but the Newburger firm made good money on a new piece of Graham analysis. On his suggestion, it bought stock at 50¢ a share that on the road's reorganization brought new stock worth twice as much.

The M.K.T. call launched Ben's career as a risk arbitrageur—a pursuit requiring a quick mathematical turn of mind, and an eye keen enough to distinguish two discrete bits of information: market price on the one hand and underlying value on the other.

Ben's first big such hit lay in the perception that the market was grossly underpricing the liquidation of the Guggenheim Exploration Company. It owned major interests in four Big Board–traded mining companies. As reconstructed by colleague (and fellow superinvestor) Irving Kahn in a study for the Financial Analysts Research Foundation, Guggenheim's going-out-of-business arithmetic looked like this: Each share of the holding company would receive .7277 shares of Kennecott Copper; .1172 shares of Chino Copper; .0833 shares of American Smelting; and .185 shares of Ray Consolidated Copper.

All told, the package carried a market value of \$76.23. Guggenheim Exploration, on the other hand, was selling at a bargain \$68.88. Ben recommended that Newburger simultaneously sell the pieces and buy Guggenheim for a clear gross profit of \$7.35 a share.

The spread was there because of the risks: Shareholders might turn down the deal in the three months before it was scheduled to fall into place; the deal might get tied up in litigation or some regulatory hang-up; prices on the small pieces might rise sharply before they were distributed to Guggenheim holders, thereby wiping out the profit spread. Ben had assessed the dangers and decided they weren't substantial. Ben was right and won himself another raise. On the strength of the Guggenheim coup, he began to develop a personal following and a deepening sense of value investing: **When you spot intrinsic value at a discount, go for it!** Ben's margin of safety: the strong likelihood that Guggenheim would trade up to the value of the pieces.

Among his new followers was Algernon Tassin, one of Ben's favorite professors at Columbia. Tassin put his lifesavings—about \$10,000 in

blue-chip utility stocks—into a joint account. Ben would run the book; profits and losses would be split 50-50. Ben's reputation was anchored in the idea that he had tamed speculation. There was risk, but you weren't betting on some vague evanescent turn in the market to make you rich. You were buying a piece of hidden value the market would recognize soon or late and price accordingly.

The Tassin account was doing well, but much else was on the boil. The United States had entered World War I. British-born Ben—the family had emigrated from London to New York when he was little more than a year old—tried to enlist in Officers Candidate School. Turned down because he wasn't a U.S. citizen, Ben did manage to gate-crash a New York Guard outfit. He was also settling into marriage with Hazel Mazur, a sweet but assertive elocution and dance teacher he had met when double-dating with brother Leon.

Reciprocally enough, Ben was financing a new venture of Leon's (he of the movie house failure). This involved the purchase of the Broadway Phonograph Shop, located uptown at Broadway & 98th St. The cost, about \$7,000, had come out of Ben's share of the profits of the Tassin account. The record shop failed to live up to its promise. Unfortunately for Ben, its swan song coincided with a sharp peace scare sell-off in the stock market.

The peace scare—a flash that the Germans were about to surrender—was a hiccup typical of runaway bull markets. Traders glorying in war-driven prices had no confidence in the underlying economy.

In its full dimension, Ben's value theory holds that safety-minded investors (as distinguished from speculators) should shift proportionately more money out of stocks and into bonds as equity prices boom. The point is to be able to get back into stocks when bear market bargains reappear. Ordinarily, Ben would have been buying as peace scare prices fell. But with all his cash tied up in Broadway Phonograph and its Vocalion brand record inventories, he was in a liquidity bind. He had no buying power. Worse yet, he couldn't meet margin calls on the money borrowed to leverage the Tassin account.

To cover the calls, he was forced to sell off some of his old professor's treasured blue chip, American Light & Traction stock.

In his memoirs, Graham recalls wandering the Financial District in bleak despair: "I had a debt to the account which I could not repay; what was worse . . . My management of Tassin's capital had failed abjectly."

The old tutor stuck with Ben, though it was almost two years before he was fully repaid at the rate of \$60 a month—all Ben could afford. What comes around goes around. Tassin's continuing trust in Ben made him a rich man. And Ben, who subsequently bought a substantial piece of a bankrupt Aeolian Company preferred stock at distress prices, finally managed to squeeze a profit out of the record business. The Tassin failure burned, though. And while it made him much more conservative about borrowing money, Ben was about to get another lesson in humility that reinforced the innate caution of his still evolving market strategy.

A friend arranged for Ben to be let in on the ground floor of a heavily promoted new issue for an outfit called Savold Tire. The draw was high-tech stuff: Savold's revolutionary new process for retreading automobile tires. The stock opened at 10 and zipped to 35. Within a week, recalled Graham, his initial stake of \$5,000 brought a check for three times that amount.

Graham clamored for more, getting himself and friends in for \$20,000 on a Savold affiliate floated four weeks later. Inside price: \$20. The stock opened at \$50, and Graham celebrated his twenty-fifth birthday in a "blaze of excitement": a check for the original contribution, plus some 150 percent in profits.

Disappointingly, Graham and his friends were shut out of the next Savold offer. Sorry, just not enough stock to go 'round, Ben was told. Then came the good word—yet another affiliate was about to hit The Street. Last call! Graham quickly put together \$60,000, half of it anted up by three friends, and got ready to pop the champagne on another smash debut.

The offering didn't go off as scheduled. Administrative delays, Ben was told. Anxious days went by. Then, like a puff of smoke, bids on all the Savold companies totally disappeared in the raucous outcry of the old outdoor Curb Market.

The only thing real about these will-o'-the-wisps, reckoned a chastened Graham, was the big electric sign that appeared over Columbus Circle, "as if by magic," soon after the first stock offering. It flashed "Save," then "Old," and then "Savold." Stunned by his own cupidity, Graham took the pledge. Moral: Late bull market IPOs are all part of the high-octane speculative environment. The game hasn't changed very much.

Generations of hot new issues have come to market since Savold, pushed to “levels little short of insane,” wrote Ben, only to collapse in very short order. Today’s promotional techniques may be different—Internet chat rooms instead of neon signs over Columbus Circle—but the results are the same. Dozens of hotshot dot-coms have vaporized with attrition rates that make it plain you can do better at the blackjack table.

Ben, at least, had direct recourse. He ultimately collared the promoter and succeeded in squeezing out of him about 30¢ on every dollar that had been plunged on the last Savold offer. A chagrined Graham had done no homework on the issue—a lamentable breach of the advice handed down in a series of pamphlets (“Lessons for Investors”) he had been writing for Newburger clients. Graham had put heavy emphasis in the pamphlets on the need to search for intrinsic value priced well below the market. Don’t follow the crowd, he preached.

This was pretty cocky stuff coming from a “statistician” of less than a decade’s standing on The Street, but Graham had backed his rhetoric with a rare talent for sniffing out value. In recognition, he’d been elevated to junior partner, with a modest share of the Newburger profits. His arbitrage operations had expanded to the point where they were absorbing more capital than Mr. A.N. wanted to divert from the firm’s highly profitable margin business.

The impasse was resolved when Ben, just nine years after he had talked his way into a \$12 a week starting salary, turned independent money manager. He kept his office at Newburger and continued to trade through the firm, but had signed on to run a \$250,000 account for a group of well-to-do clients who were principals in a thriving raincoat business. Ben’s end of the deal: a salary of \$10,000 a year and 20 percent of the profits after a minimum 6 percent return on the clients’ money.

Ben quickly covered the 6 percent bogey with underpriced finds like DuPont. DuPont then held a huge stake in General Motors. Pierre du Pont, in fact, the patriarch of the family, was about to become head of the automaker. Each share of DuPont was backed by seven shares of GM—precisely the value a grossly inefficient market was putting on the stock. A sharp trader could buy DuPont for the price of its GM stock alone, in effect, getting the combine’s fast growing chemicals business for nothing. Graham seized on the spread with an elegant turn of the math—buy DuPont, sell short seven times as many shares of GM

against it. When the market finally caught up with imbalance, Graham profited by selling DuPont and covering his short position in GM.

Latter day macro hedge funds, such as the notoriously ailing Long Term Capital Management LP, nearly swamped by heavy leverage and sophisticated mathematical formulas that misfired, could have benefited from Ben's plain-vanilla approach.

By 1926, Ben's reputation as a value player and the runaway bull market had brought new affluence to the young Grahams. There were three children now, and a spacious apartment at 86th St. and Riverside Drive, in a neighborhood that to Ben "spoke of financial success." The family summered in the carefully manicured enclave of Deal, on the New Jersey shore, and Ben began to take squash and golf lessons at the City Athletic Club.

The new affluence was a direct result of the under-valued situations Ben continued to dig up, sometimes almost by sixth sense. Working with \$450,000 in capital now, much of it his own, Graham was winnowing through an Interstate Commerce Commission annual report on railroads one day when he did a double take on a footnote reference to a group of pipeline companies.

Graham was soon on a train to Washington, D.C. In the records room of the ICC, he requested documents he hadn't known existed before spotting the footnote reference in some of the pipeline financials.

Eight of these pipelines had come out of the breakup of the Standard Oil Company in 1911. Their job was to move crude oil from the wellheads to the refineries. Tankers had taken over much of their business and Wall Street was paying them little attention, as evidenced by the junk bond-like nine percent yield on Northern Pipeline Company common stock.

Dividend payout had already been cut some, and the yield was signaling that Wall Street expected still more trouble ahead. The mingy one-line income statement the pipelines made public did little to dispel this apprehension.

Sifting through the full balance sheets he found on file at the ICC—documents other "statisticians" had missed—Ben made a startling discovery. The pipelines were loaded with prime railroad bonds, which in the case of Northern Pipeline amounted to about \$95 a share. The stock was selling at \$65 and paying a \$6 dividend. Ben began nibbling at the

stock and slowly acquired 2,000 shares, making him and his partners in the Graham Joint Account the biggest holders of record after the Rockefeller Foundation.

Ben confronted the Standard Oil management with the unwelcome idea that all this surplus capital clearly not needed in the business ought to be distributed to shareholders. Not surprisingly, he was told to get lost and smothered in Robert's Rules of Order when he tried to make his point heard at an annual meeting.

Ben responded by buying up much more of Northern than his partnership could afford. He began lobbying other stockholders, and succeeded in getting himself elected to the board—something no outsider had ever managed to do before. It took two years, and some behind-the-scenes nudging by the puissant Rockefeller Foundation, but a restructuring finally brought Ben and his followers total value of about \$110 on their shares. Ben's forte of rigorous research had once again carried the day. Ben didn't particularly like being portrayed as a self-serving outsider in the pipeline struggle—a “raider”—but he had learned another important lesson. It is one thing to perceive value; often another to capitalize on it.

The value of the Graham Joint Account was approaching \$2.5 million, much of it reflecting Ben's reinvested profits. Some new money had come from fellow Boys High and Columbia grad Jerome Newman. Newman, a shrewd negotiator and businessman, was beginning to play Mr. Outside to Ben's cerebral Mr. Inside in a partnership destined to last more than 30 years.

Ben was sharing some of his investment ideas with Big Names. One of them was mover and shaker Bernard Baruch, who rather condescendingly (Ben thought) offered Graham a junior partnership. Ben was happy to be able to turn him down. The stocks that Baruch got aboard were typical Graham picks. They were rather stodgy solid franchises like Pepperell Manufacturing (sheets and pillowcases) and Heywood & Wakefield (baby carriages), selling well below going business value, ignored in the great bull market rush for glamour items like Radio Corporation.

Though still able to cherry pick values, Graham was certain a grossly overpriced market was riding for a fall—a point sounded often in the once-a-week, two-hour-long security analysis classes he had begun to teach at the Columbia Business School.

Ben had been talking about writing a book on security analysis for some time now and thought that preparing a lecture series would help him put one together. Ben's classes were liberally salted with Wall Street professionals, who happily swapped market tips. The classes focused on current market case studies (Pepperell Manufacturing, for one) and were wildly popular. As the market mounted to its 1929 peak, more than 150 students were absorbing the Graham keys to income statements and balance sheets, with particular emphasis on the ambiguities of corporate accounting practices.

The Graham family affluence was mounting, too. This was evidenced by the ten-year lease (at \$11,000 a year) Ben had signed on a new duplex with a great view of Central Park. The domestic staff included a valet-butler whose duties included a daily massage for the master of the house. The new affluence was little solace for the loss of first-born son Isaac Newton, who died of meningitis at age eight—roughly Ben's age when his own father had died.

There was still pain 40 years later in Ben's recollection of the child's death. A new son would soon be born, but the marriage with Hazel was beginning to unravel. As to the book, Ben was about to live through a market chapter that would provide him with plenty of new material. It was 1929, and the excesses of the great bull market were coming home to roost.

After a spectacular 1928 (up 60 percent versus 51 percent for the Dow Jones Industrials), Ben had come into 1929 with what he thought was a cautiously hedged position—about \$2.5 million in convertible preferred stock offset by a short position in an equal amount of common stocks. If the market dropped, the common would fall faster than the preferred and Graham could close out the hedge with a profit.

In addition, he was carrying common stocks with a market value of about \$4.5 million on borrowed money—margin of about \$2 million. By the standards of the day (you could buy stock with as little as 10 percent down) Graham was looking at the world from behind what seemed to be a solid bulkhead. The painful memory of unmanageable debt in the Tassin account was never far from his mind. The waves of Black Tuesday, however (October 29, 1929), struck with unprecedented ferocity. Some \$14 billion in market value got wiped out on huge volume.

With the ticker running hours behind trades on the floor, prices were mainly guesswork. Exhausted clerks were catnapping nights in

the office in a vain effort to keep the paperwork abreast of the flood. Peak to trough, the Dow Jones Industrials in 1929 sank from a wonderful nonsense 380 to under 200. Graham made money on the short side of the market, but still came out of the year with a 20 percent loss. The licking he took in 1930 was even worse—50 percent (versus 29 percent for the Dow Jones Industrials). Ben was struggling to pay down debt and at the same time hold on to stocks he saw as having solid potential.

He was in double jeopardy. Though he and partner Jerry Newman valiantly continued to pay quarterly distributions of 1 1/4 percent out of their own capital, the return was not enough to keep partners with troubles of their own from pulling money out of the account. The only injection of new money—a heartening gesture and ultimately a highly profitable piece of bottom fishing—came from Jerry Newman's father-in-law. By the end of 1932, the fund was down to less than 25 percent of the \$2.5 million with which it had entered 1929. Fearful that the losses would never end, sick that he had failed friends and family, Ben wrote a poem that asked:

Where shall he sleep whose soul knows no rest
Poor hunted stag in wild woods of care?

Though haunted by uncertainty, Ben had actually done amazingly well. From the depths of the 50 percent loss in 1930, he was down only 16 percent in 1931 (versus minus 48 percent for the Dow Jones Industrials) and down only three percent (versus minus 17 percent DJIs) in 1932. Ben was battered but alive. If Graham had done as badly as the market as a whole, he would have been wiped out. His margin of safety: relatively conservative borrowing, a cautiously hedged position that produced major profits on the downside.

Still a lot better off than he had been 10 years before, Ben began to retrench. "The crash reaffirmed parsimonious viewpoints and habits that had been ingrained in me by the tight financial situation of my early youth," he recalled in his memoirs. The duplex was rented (though not at the full rate) to a member of the Neiman-Marcus retailing family; the ten-year lease wiggled out of at some modest penalty; and the Graham family resettled in the cheaper if not exactly low-rent quarters of the El Dorado at 91st Street and Central Park West. The

domestic staff was cut and Ben's mother was asked to give up the car and driver he was providing.

On the business side, the partners wrung a settlement from underwriters who had sold them bonds on a zinc mine whose earnings had been outrageously inflated in the prospectus. As major holders of Universal Pictures eight percent preferred, they even confronted Max Laemmle, president and founder of the movie maker. Universal had stopped paying dividends, the preferred had dropped to 30¢ on the dollar, and where the hell did Laemmle get off, paying himself three thousand smackers a week while stockholders were doing without?

The ploy didn't work, but it was a measure of how desperate Graham was to pay off margin debt and get the account back into the black. Both were a must, since his own compensation was keyed to a percentage of the profits. Worse yet, he and Newman were entitled to no money at all until all the capital losses were made up.

The agreement was later modified, but Ben had to scurry for other sources of cash. He got serious about the book, hiring young David Dodd, a former student at Columbia, to help with the research, and stepped up his outside writing. A series of three articles for **Forbes** summed up what he had learned from the Great Crash.

The **Forbes** pieces packed into one explosive kernel everything that was to make Ben Graham's reputation as the Von Clausewitz of value investing. They were at the core of the strategy that made his open-end mutual fund, Graham Newman Corporation, a star performer for three decades. Their findings were at the heart of his best-selling books, **Security Analysis** and **The Intelligent Investor**. The **Forbes** series also helped to showcase the extraordinary quality of the training he gave three generations of up-and-coming money managers at the Columbia Business School, including such reigning Grahamites as Warren Buffett and the Sequoia Fund's Bill Ruane.

Ben's intuitive sense of value right along had focused on such great finds as Guggenheim Exploration and Northern Pipeline—situations where he spotted underlying riches at well below market prices.

Graham had to work hard to dig up ten strikes like those. Now, suddenly, after the Great Crash that had put him in such hot water, value was everywhere and going begging. Ben set a cadre of his students to matching market prices and values for all 600 industrials listed on the

New York Stock Exchange. This was foot slogging work in the pre-calculator, pre-computer age, but the results were startling: One out of every three of the 600 could be bought for less than net working capital. More than 50 were selling for less than the cash (and marketable securities) they had in the bank.

Montgomery Ward, for example, was trading for less than half of net quick assets. For \$6.50 a share, you got \$16 in working capital and the whole of this great retailing franchise—catalog business and all—for nothing. With issues like American Car & Foundry and Munsinger, \$20 and \$11 would bring \$50 a share and \$17 a share, respectively, in cash alone. The rest of the businesses—bricks, mortar, machinery, customers, and profits—was a free ride.

It was clear “that in the best judgement of Wall Street, these businesses are worth more dead than alive,” Ben told **Forbes** readers. Liquidated in a private sale, they would at least fetch working capital, which was a lot more than what they were bringing on the floor of the New York Stock Exchange.

Yes, there was a bear market. Busted booms, continued Ben, always bring “unduly low prices.” There had been a bear market in 1921, too, “but with respect to cash assets alone, present prices are relatively six times lower” than in the deep sell of eight years earlier.

Ben’s students’ research showed that corporate operating results were not “materially poorer,” so why weren’t investors stepping up to the plate on these bargains? “50 Cents on the Dollar,” read the **Forbes** headline. Why were they selling out for a fraction of such real values as cash in the till?

Good question. It is a question—yet another of the many parallels in their lives—that Warren Buffett raised in **Forbes** 40 years later after go-go stocks cratered in the sell-off of 1973–1974. Prices were so low that Buffett felt “like an oversexed guy in a harem.” “This is the time to start investing,” he told **Forbes** readers. You had to be patient and wait for buying times like these, he added, echoing the value precepts of his mentor Ben Graham. “You’re dealing with a lot of silly people in the marketplace; it’s like a great big casino and everyone else is boozing. If you can stick with Pepsi, you should be OK.”

Prices soon took off in one of the sharpest rallies ever, but Buffett was back in **Forbes** again five years later, preaching Grahamisms to pension

managers in yet another sell-off. Why were they stampeding into bonds, asked Buffett, instead of bargain-basement equities “aggregating book value or less?”

His answer was not very different from Graham’s take on the Great Crash 50 years earlier. Graham’s diagnosis: The “new era madness” of 1928–1929 had brought deep psychological changes in the “proverbially weak” logic of Wall Street. Investors who used to routinely screen values in terms of balance sheet numbers had been carried away by the “excessive emphasis being laid” on reported or much ballyhooed anticipated earnings. Lost in the bull rush was the idea that rising earnings might be only a temporary one shot, or even deceptive, thanks to “purely arbitrary differences in accounting methods.” “The opportunities for downright crookedness are legion, nor are they ignored,” wrote Graham.

Among the prime examples: a Big Board company that had “turned an operating loss into a profit by the simple expedient of marking up its goodwill and adding the difference to earnings, without bothering to mention this little detail.”

Apparently, continued Ben, management “not unreasonably” reckoned a market besotted with rising earnings would never “examine the balance sheets closely enough to detect their charming artifice.”

The environment was so superheated that “a mere \$1 increase in profits, from \$4 to \$5 a share, raised the value of a stock from 40 to 75, on the joyous assumption that an upward trend had been established which justified a multiple of 15 instead of 10,” Graham told **Forbes** readers. “The basis of calculating value thus became arbitrary and mainly psychological, with the result that everyone felt free to gamble unrestrainedly under the respectable title of ‘investment.’”

If this Grahamism sounds as though it could have been lifted straight from **Forbes**2001 instead of **Forbes**1932, it’s because Ben had a grip on some timeless truths. Yes, earnings are important, but they should be taken into account with a jaundiced eye. As Ben saw it, the best guide to “real value” was net current assets. Without too much to worry about on the downside, you could afford to wait for earnings to build. Research for the **Forbes** series helped to sharpen this perception. “Sub-asset” bargains, many snapped up for as little as two-thirds of working capital, became a major element in the investment mix of what was now the publicly traded investment company, Graham Newman Corporation.

Ben focused mainly on secondary companies with solid past records—stocks that for one reason or another, he wrote, had “no charm for the public.” In bear markets, the bargains did less well than some of the hedges and liquidations Ben pursued, but the long-term record is an enviable one.

At well below market risk levels, Graham Newman, between 1948 and its liquidation in 1956, delivered shareholders an average annual appreciation of 11.4 percent. A round lot (100 shares) of Graham Newman, bought for \$11,413 at the beginning of 1948 was worth \$70,400 when the fund closed shop. A similar investment in the Standard & Poor’s 500 stock average would have returned only \$30,968.

Those returns do not take into account the peak gains of a master stroke—the buyout of a 50 percent stake in a special situation that literally just walked in the door. Government Employees Insurance Corporation, had been founded a dozen years before by Leo Goodwin, Sr., a Fort Worth accountant with a deceptively simple idea: Cut out the middle man. The concept was to sell auto insurance by direct mail to a select low-risk group (first to the military and then government employees generally). Bypassing the standard agency structure gave the company a competitive edge in low rates. By 1948, GEICO had grown from a Mom ‘n Pop operation into one turning good profits on about \$3 million in premiums. The one drawback was that Goodwin and his family owned only 25 percent of the company. Their majority owners wanted to cash in on success while it was there for the grasping.

The day he walked into Ben’s office, attorney David Kreeger had for a while been trying—with no success—to place a chunk of the controlling stock in sympathetic hands. Ben Graham and Jerry Newman sensed potential, but worried about risk. The asking price seemed fair enough in terms of earning power and assets, but there was a serious question of exposure. Half the company would cost about \$720,000—nearly a quarter of Graham Newman’s assets. For a strategy built around broad diversification—Ben’s stake in bargain issues was spread over dozens of companies—GEICO would mean a drastic change in style.

It was a gutsy call. The GEICO stock was spun off to Graham Newman stockholders on a share-for-share basis at a value of around \$27 a share. As GEICO powered its way to rank among the top five auto

underwriters in the country, the Graham Newman shares rose to the equivalent of \$54,000 a share.

Among the early stage buyers: one of Ben's students, 21-year-old Warren Buffett. Following his master's dictate of rigorous research, as part of a paper he was doing, Buffett journeyed to GEICO's Washington D.C. office on a Saturday afternoon. The janitor sent him up to talk to the only other person in the office that day—investment officer (and subsequent chief executive) Lorimar Davidson. The two chatted for five hours and Buffett came away a believer. He popped about three-quarters of his \$9,000 net worth into the stock and sold a year or two later for a 50 percent profit.

It was clearly love at first sight. In 1976, after Ben had retired as chairman, GEICO had over-expanded pell-mell to the edge of bankruptcy. Over the next five years, in yet another demonstration of his own bargain hunting skills, Buffett put more than \$47 million into the company. Ultimately tucked into Berkshire Hathaway, GEICO now boasts assets of more than \$9 billion.

Ben Graham's call on GEICO brought in more than the total of all his other investments. It was a call that broke some of his own long-standing investment rules and left Graham with somewhat ambivalent feelings. The moral? "There are several different ways to make and keep money in Wall Street," he wrote.

Ben's record demonstrates that one of the best and least risky ways to make money in Wall Street is to focus on cheap assets. Is this a formula for all seasons? Ben had no difficulty finding working capital values from the Depression 1930s into the mid-1950s—a long enough period to validate the idea that there was good money to be made in focusing on assets.

Ben himself conceded there would be times when bargains would be scarce, and that the conservative investor could be left on the sidelines of a raging bull market. That's okay with Warren Buffett. "Sometimes it's a good idea to go to the beach," he says. It's a reminder that Buffett himself sat on the sidelines for a while after liquidating his partnership in 1969, precisely because he felt prices were out of sync with the value discipline.

From the mid-1950s on, as pension and mutual fund money sluiced into stocks, bargains got thinner on the ground. There were, of course,

those market breaks that left Warren Buffett feeling so oversexed—opportunities when 20 or more sub-asset plays could be cherry picked on the New York Stock Exchange alone. Buffett seems certain that the New Paradigm of the 1990s has not legislated those opportunities out of existence. Not long ago he told shareholders “When the market plummets—as it will from time to time—neither panic nor mourn. It’s good news for Berkshire.” And so it has been.

Ben himself rarely tried to push profits, cautiously selling (except for GEICO) when he saw a 50 percent profit.

As Buffett notes, Graham had no real intensity for money. Truly a classicist, his deepest satisfactions were intellectual—working the numbers, watching them come out. Graham Newman liquidated largely because Ben was no longer feeling challenged.

He had married again (for the third time), started a new family, moved to Beverly Hills and began teaching at the UCLA Graduate School of Business in a tenure that lasted 15 years. He tinkered with inventing an improved version of the slide rule, translated a favorite novel from Spanish, and continued to refine his value strategies through successive editions of his books.

Ben began to focus more on earnings and dividends than assets. As published in *Forbes* the new look was designed as a handy pocket tool for the average investor and produced superior results for five of the six ten-year market periods that Graham matched it against (see box, page 3).

More recent—if limited—backtesting comes from Henry R. Oppenheimer, professor of finance at the State University of New York, Binghamton. Tracking the years from 1974 to 1981 in an article for the *Financial Analysts Journal*, Oppenheimer found that stocks picked on the basis of two or three of Ben’s criteria would have brought mean annual returns of at least 26 percent. That was double the 14 percent return on an index of Big Board and American Stock Exchange issues.

Graham’s risk reward screens are so demanding it’s often hard to find companies that meet more than a few of his criteria. Changes in business practices—a switch from high-dividend payouts to open market stock buy-backs, for example—have altered the relationship that Graham liked to see between stock and bond yields.

Other criteria have withstood the test of time. Minimum earnings growth and stability are certainly two of the hurdles any stock should

clear before making the buy list. And while you may not be able to find any discounts at the moment, Graham's tests will help you determine whether the price you are being asked to pay is within reasonably conservative parameters or totally out of sight. As Mr. A.N. warned, "If you speculate, young man, you'll lose your money."

Graham was more than just a number cruncher. His shrewd insight into emotional swings in the marketplace anticipated by decades what behavioral psychologists are only now documenting: Investors tend to overreact on both good and bad news.

Take "Mr. Market," a tongue-in-cheek construct designed to help investors keep the foibles of price movements in perspective. This obliging character of Ben's stands ready every minute of the trading day to tell you what your piece of the business is worth and "offers either to buy you out or sell you an additional interest on that basis." Sometimes Mr. Market is plausible enough in terms of fundamentals. Other times he is manic—"his enthusiasm or his fears run away with him and the values he proposes seem little short of silly," said Ben.

Why let Mr. Market's emotional swings determine your view of value? asks Graham. You might be happy to sell to him if his quote is "ridiculously high, or buy if his quote is low." But to do so simply because of what the voluble Mr. Market seems to be signaling is a losing game. Better to filter out the noise and concentrate on basics like operating results.

Value investors by definition are contrarians, but that doesn't mean the canon is frozen in time. Look at how differences in master/protégé style have evolved. Buffett's search for under-valued assets has turned to intangibles like brand names and franchises—potential Ben Graham would have dismissed as just so much overpriced good will.

When Buffett first bought into Coca-Cola Company and the Gillette Company a decade ago, he did so at what were for him uncommonly rich multiples. His assessment was that the companies' global reach was an unassailable competitive edge that would keep earnings growing well into the future. Monopoly positions have value, too—hence Buffett's investment in newspapers like the **Washington Post** and the **Buffalo Evening News**. The applications may be new (as were the changes Ben brought in his day), but the search for value at a discount is a constant.

There are other generational differences. With the notable exception of GEICO, where he served as chairman, Graham tended to look on companies as abstractions. Buffett gets deeper into them as businesses, in many cases first buying pieces of them—as if for a laboratory sample—and then snapping up the rest.

Growing stylistic nuance hasn't dimmed Graham's legacy. One of his lasting bequests is the tradition of rigorous research. Ben's doggedness in digging out documents on the Northern Pipeline rail bond holdings, for example, is mirrored in Buffett's Saturday descent on the GEICO janitor, or his counting chemical tank car shipments to get a line on sales of gasoline additive sales.

Graham himself thought all he had learned in six decades of tracking the market could be summed up in three words: margin of safety. The concept got lost—to considerable pain—in the super-heated environment of the last several years. Off-the-chart prices can be justified only if everything in an unpredictable future goes exactly right. By Graham's standards, the margin of safety on runaway stocks can be measured only in imaginary numbers.

The margin of safety is really a comfort factor—the idea is to cut some slack against such X-factors as bad judgement, bad luck, and the unpredictables always lurking around the corner. In an era of lower market multiples and interest rates, comfort factors were easier to come by. To cite one of Ben's examples, a more or less typical stock would be selling at an earnings yield of nine percent—the reciprocal of a price earnings ratio of 11. With high-quality bond yields at four percent, you had a margin of five percent going for you. Compounding the margin over a long-term investment in a company with reasonably predictably earning power, you would likely have no trouble sleeping nights.

This Grahamesque exercise remains a useful tool. It won't generate comfort levels of anything like five percent, but will nonetheless provide a realistic measure of the depth of the waters you're about to plunge into.

The touchstone is still intrinsic value—the discounted present value of the cash that can be taken out of a company over an investment period of a decade or so. Buy below intrinsic value, and you've got a margin of safety. Buy above it, and you may be looking for trouble.

Central value asks questions like: What is this company worth as a going business? How much have other companies like it sold for? What would it go for in a liquidation? Value-oriented outfits like the Legg Mason Value Fund routinely do such analyses. They start with a sophisticated sense of both a company's potential earning power and a realistic discount factor. Though the term has an air of permanence, intrinsic value is a horseback estimate, varying with interest rates and the fudge factors of the people making the estimates.

Buffett, for example, won't touch high-tech stocks with a barge pole. Famously, he says he won't invest in companies he doesn't understand. Neither—not coincidentally—will he invest in companies that do not yield “a reasonably predictable earnings pattern a decade or more out.”

Some value players who have ventured into high-tech stocks like America Online (AOL), usually at bad-news prices, have done so by cranking very high safety rates into the equation. William H. Miller, III, for example, a portfolio manager for Legg Mason's Value Trust, for a time tacked a 30 percent discount on AOL—about three times the rate he put on IBM.

In short, the margin of safety lies in minimizing business risk. For value players like O. Mason Hawkins and G. Staley Cates, chairman and president, respectively of the Memphis, Tennessee-based Longleaf Funds, that means looking for such competitive edges as low costs, entrenched brand names, and dominant market share.

You need to measure financial strength, too—low debt levels, limited liabilities, and plenty of free cash flow reinvested at high margins. The trick, of course, is to find at least some of these attributes in a package selling well under the market.

It can be done. In his noted essay on the “Superinvestors of Graham-and-Doddsville,” commemorating the fiftieth anniversary of the publication of *Security Analysis*, Buffett cites the amazingly consistent performance of nine of Graham's former students and intellectual heirs. Besides his own sterling numbers, Buffett puts up for inspection the records of such well-known Grahamites as Sequoia Fund's Bill

Ruane, and Tom Knapp and Ed Anderson (who founded the money management firm of Tweedy Browne Partners). Their styles differ somewhat, but they all adhere to yet another of Ben Graham's tenets, a paraphrase of Spinoza: Value is best approached from the viewpoint of calamity.